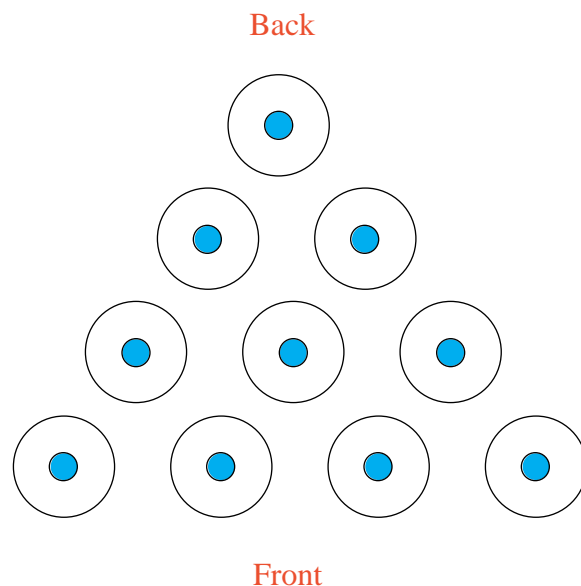


# The Bowling Pins

## Problem-of-the-Week

### The Problem

Ten bowling pins are set up as shown. But, the triangle of pins points the wrong way! The pins should have a row of one pin in front, followed by the row of two pins, followed by the row of three, and ending with four pins at the back. Correct the arrangement of the pins by moving only three of them.



### Strategies and Hints

1. Try numbering the pins so you can keep track of what moves you make.
2. Show that the 1-pin row in the beginning arrangement cannot become the 4-pin row in the final arrangement.
3. Show that the 3-pin row in the beginning arrangement cannot become the 4-pin row.
4. Which row will become the 4-pin row?